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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,416	11/14/2001	Hiroaki Masaoka	111107	7042
25944	7590	11/12/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			TUGBANG, ANTHONY D	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,416

Applicant(s)

MASAOKA, HIROAKI

Examiner

A. Dexter Tugbang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The applicant(s) amendment and response filed on 7/21/04 has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The rejections below are maintained and hereby repeated below the applicant(s) convenience.

Election/Restrictions

3. This application contains Claim 1 drawn to an invention nonelected with traverse in response filed on 5/5/04. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102

4. Claims 2-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Verge.

Verge discloses an apparatus comprising the following structure: electrically conductive movable elements (wires 4 in Fig. 9); female terminals 6; male terminals 71; a conduction test device (station 13 in Fig. 1); and conductive portions (exposed portions of wires not covered by insulation in Fig. 9).

With respect to the detailed recitation of “said movable elements...male terminals” (lines 7-11 of Claim 2), these limitations are fully satisfied by Verge in that Verge shows the movable elements 4 in a “waiting position”, (in Fig. 9) with the male and female terminals being apart.

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Subsequently, the male and female terminals are connected to one another (see col. 10, lines 24+), which can be read as the “conduction position” or alternatively, the “correct connection condition”.

With respect to the detailed recitation of “when all of...conductive” (last 2 lines of Claim 2), these limitations are also satisfied by Verge in which the conduction portions become conductive to the extent that an electrical test is performed (see col. 5, lines 25-30).

Regarding Claim(s) 3-5, each of the movable elements of Verge further comprise a conductor (portion of wires 4 that are insulated), which is in contact with the conductive portions (portion of wires 4 exposed and not covered by insulation), and an insulator (insulation surrounding the wire shown in Fig. 9). The movable elements (wires 4) are disposed in the female terminals 6 (see Fig. 9) with the “conductive portions” (exposed portion of wires 4) being placed in direct contact with both the movable elements and the to-be-connected female terminals 6.

Claim Rejections - 35 USC § 103

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Verge.

Verge discloses the claimed apparatus further including male terminals 71 that are disposed on bus bars 72, 73 in a junction block. Verge does not appear to mention that the female terminals 6 are disposed in connectors of a printed circuit board of an electronic control unit.

The examiner takes Official Notice that disposing male and female terminals in connectors of a printed circuit board is conventional, old, and notoriously well known in the art,

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at least for the benefits of providing a certain degree of electrical circuitry within the electronic control unit. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Verge by disposing the female terminals in connectors of a printed circuit board of an electronic control unit for the well known benefits of achieving a certain degree of electrical circuitry.

Response to Arguments

6. Applicant's arguments filed 7/21/04 have been fully considered but they are not persuasive.

In regards to the merits of Verge, the applicant(s) assert that Verge does not teach "said movable elements...said male terminals" (lines 7-11 of Claim 2).

The examiner most respectfully disagrees for the following reasons. It has been well settled by the courts that patentability of an apparatus is relied upon in the structure of that apparatus. The apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997).

The examiner's position is that the claimed structural elements of the "electrically conductive movable elements", "male terminals", and the "all to-be-connected female terminals", do not distinguish from the structural elements read as the wires 4, male terminals 71 and female terminals 6, respectively, in Verge. The above recitation in question (lines 7-11 of Claim 2) does not further distinguish the structure of the apparatus, but appears to be a functional

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relationship between the “electrically conductive movable elements”, “male terminals”, and the “all to-be-connected female terminals”.

The applicant(s) have reason to believe that the above recitation in question is not met because the wires 4 do not move and thus, cannot be called “movable elements”. The examiner notes that the claims do not preclude the wires from being captivated by walls 85 of the terminals. Whereas the “insertion operation” of Verge clearly shows that the wires 4 are movable by virtue of the operations shown either Figures 1 or 6 where the wires move from station to station, to form the connection between the female terminals and the male terminals. One intent of Verge’s invention is to utilize a conductive test device (test station 13) whereby the “conduction position” is checked for electrical conductivity, integrity, and accuracy between the male terminals, all to-be-connected female terminals, and the movable elements (see col. 5, lines 25-30). So yes, the examiner’s position is that Verge fully meets the above recitation in question (at lines 7-11 of Claim 2). Furthermore, the examiner notes that the test station 13 of Verge fully meets the claimed “conduction test device”.

With respect to the 103 rejection above, the applicant(s) have not appeared to challenge the Official Notice taken by the examiner. However, as noted below, the examiner has cited at least one reference to show the conventional aspects of disposing male and female terminals in connectors of a printed circuit board.

Accordingly, the examiner maintains the rejections above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The reference cited to Lenz et al (U. S. Patent 5,192,232) is relevant to show the conventional aspects of female terminals disposed in connectors of a printed circuit board.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

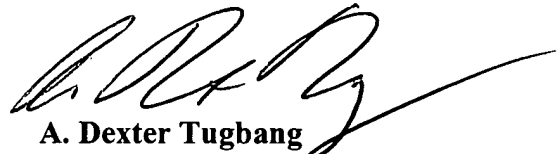
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599. The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

November 7, 2004